

IN THE CLAIMS

Please cancel claims 28 and 29 without prejudice or disclaimer.

Please amend claims 1, 12, and 17 as follows:

B1

1. (Amended) A non-naturally occurring composition of matter comprising at least one component possessing nucleic acid polymerase enhancing activity selected from the group consisting of: an isolated or purified [naturally-occurring] naturally occurring polymerase enhancing protein obtained from [a bacterial, eukaryotic, or] an archaeal source; a wholly or partially synthetic protein having the same amino acid sequence as said naturally-occurring protein or analogs thereof possessing polymerase enhancing activity; polymerase-enhancing mixtures of one or more of said naturally occurring or wholly or partially synthetic proteins; polymerase-enhancing protein complexes of one or more of said naturally occurring or wholly or partially synthetic proteins; or [polymerase enhancing] polymerase-enhancing partially purified cell extracts containing one or more of said naturally occurring proteins.

B2

12. (Amended) A composition of matter according to claim 10 or 11, further comprising a subunit encoded by a DNA having the nucleotide sequence of SEQ ID NO: 18 [, degenerate variants thereof,] or [sequences hybridizable thereto] or a sequence that hybridizes to the complement of the nucleotide sequence of SEQ ID NO: 18.

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17. (Amended) A composition of matter according to claim 16, wherein said protein is selected from the group consisting of: a protein having a sequence of amino acids at or within about 20 amino acids from the amino terminal end comprising one of

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SEQ ID NO: 69 or 11; a protein encoded by a nucleic acid having the sequence of SEQ ID NO: 70 [, degenerate variants thereof,] or [sequences hybridizable thereto] or a sequence that hybridizes to the complement of the nucleotide sequence of SEQ ID NO: 70; or a protein having a sequence of amino acids comprising SEQ ID NO: 71.

Please add new claims 95 and 96:

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--95. (New) A composition of matter according to claim 1 comprising a polymerase-enhancing protein encoded by an isolated or purified DNA sequence that hybridizes to the complement of the nucleotide sequence of SEQ ID NO: 70 under stringent conditions.

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--96. (New) A composition of matter according to claim 1 comprising a polymerase-enhancing protein encoded by an isolated or purified DNA sequence that hybridizes to the complement of a nucleotide sequence that encodes a protein, wherein said protein has a sequence of amino acids at or within 20 amino acids of the amino terminal end comprising one of SEQ ID NO: 11 or 69.--

REMARKS

Applicants canceled claims 28 and 29 without prejudice or disclaimer. Applicants amended claims 1, 12, and 17. Applicants amended claim 1 to change the hyphenation of certain terms. Applicants also amended claims 12 and 17 to more clearly define the invention. The amendments present no new matter. Applicants